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EXAMINER	
GUYTON, PHILIP A	

ART UNIT	PAPER NUMBER
2113	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/726,769	STEVENS, MICHAEL J.	
	Examiner	Art Unit	
	Philip Guyton	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: the phrase "if the operating system failed to booted correctly" is not grammatically correct. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 11-13, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,930,605 to Chen.

With respect to claim 1, Chen discloses a headless embedded system (column 1, lines 23-27) comprising:

an indicator capable of being illuminated (figure 1, item 11 – indicator light and column 2, lines 50-52);

an operating system (column 2, lines 48-49 – embedded operating system);

applications that perform a function for which the headless embedded system was designed (column 1, lines 14-22);

a processor responsive to an operating system and applications (inherent that embedded operating system has processor); and

an application that determines if the system is operating correctly (column 3, lines 24-30), wherein if the system is operating correctly the application causes the indicator to be illuminated (column 3, lines 32-47).

With respect to claim 2, Chen discloses wherein the application determines the operating status of the system by determining whether a predetermined set of processes are active (column 3, lines 51-62).

With respect to claim 3, Chen discloses an input/output port in communication with the processor and the indicator (figure 1, item 31 – signal control module), whereby the application instructs the processor to output a signal via the input/output port to the indicator (column 3, lines 2-14).

With respect to claim 11, Chen discloses a method for indicating the operating status of a headless embedded system, the method comprising:

booting the system (column 1, lines 31-36);

determining if the system is operating correctly (column 3, lines 24-30); and

illuminating a first indicator if the system is operating correctly (column 3, lines 32-47).

With respect to claim 12, Chen discloses wherein the step of determining if the system is operating correctly comprises determining whether a predetermined set of processes are active (column 3, lines 51-62).

With respect to claim 13, Chen discloses:

executing software that initiates a predetermined set of processes (column 3, lines 48-51 – embedded operating system); and

wherein the step of determining if the system is operating correctly comprises determining whether a predetermined set of processes are active (column 3, lines 51-62).

With respect to claim 16, Chen discloses a headless embedded system comprising:

an indicator capable of being illuminated (figure 1, item 11 – indicator light and column 2, lines 50-52);

an operating system which maintains a list of processes active on the system (column 2, lines 48-49 – embedded operating system);

a processor responsive to an operating system and applications (inherent that embedded operating system has processor);

a serial port connected to the indicator (figure 1, item 21 – driving module, item 41 – control signal and column 3, lines 6-14 - only one bit sent to indicator light, to invert either on or off);

registers used to control the output voltages on the serial port (figure 1, item 31 – signal control module); and

an application that checks the processes active on the system and if a predetermined set of processes are active sets a register causing the indicator to be illuminated in a first color (column 3, lines 32-47).

4. Claims 1, 3-6, 8, 9, 11, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,867,704 to Pellegrino and U.S. Patent No. 6,919,816 to Dearborn et al. (Dearborn), which is incorporated by reference in Pellegrino (column 1, lines 6-10).

With respect to claim 1, Pellegrino and Dearborn disclose a headless embedded system comprising:

an indicator capable of being illuminated (Dearborn - figure 2a, item 65 and column 4, lines 45-57);

an operating system (Dearborn - column 3, line 62-64 – server management software);

applications that perform a function for which the headless embedded system was designed (inherent that software performs functions);

a processor responsive to an operating system and applications (Pellegrino – figure 1, item 110); and

an application that determines if the system is operating correctly (Dearborn - column 6, lines 4-10), wherein if the system is operating correctly the application causes the indicator to be illuminated (Dearborn - column 6, lines 27-30 and lines 38-43).

With respect to claim 3, Pellegrino and Dearborn disclose an input/output port in communication with the processor and the indicator, whereby the application instructs the processor to output a signal via the input/output port to the indicator (Dearborn - column 5, line 66-column 6, line 4).

With respect to claim 4, Pellegrino and Dearborn disclose wherein the indicator comprises an LED (Dearborn - column 4, lines 55-59).

With respect to claim 5, Pellegrino and Dearborn disclose wherein the application causes the indicator to be illuminated with a first color if the operating system booted correctly and causes the indicator to be illuminated with a second color if the operating system failed to booted correctly (Dearborn - column 6, lines 38-46).

With respect to claim 6, Pellegrino and Dearborn disclose wherein the indicator comprises a two color LED (Pellegrino – column 5, lines 9-11).

With respect to claim 8, Pellegrino and Dearborn disclose wherein the application causes the indicator to be illuminated with a first color if the system is operating correctly and causes the indicator to be illuminated with a second color if the system fails to operate correctly (Dearborn - column 6, lines 38-46).

With respect to claim 9, Pellegrino and Dearborn disclose wherein the indicator comprises a two color LED (Pellegrino – column 5, lines 9-11).

With respect to claim 11, Pellegrino and Dearborn discloses a method for indicating the operating status of a headless embedded system, the method comprising:

booting the system (Dearborn – column 7, lines 7-9);

determining if the system is operating correctly (Dearborn - column 6, lines 4-10); and

illuminating a first indicator if the system is operating correctly (Dearborn - column 6, lines 27-30 and lines 38-43).

With respect to claim 14, Pellegrino and Dearborn disclose illuminating a second indicator if the system is not operating correctly (Dearborn - column 6, lines 38-46).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5, 7, 10, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Pellegrino and Dearborn.

With respect to claim 5, Chen does not disclose expressly wherein the application causes the indicator to be illuminated with a first color if the operating system booted correctly and causes the indicator to be illuminated with a second color if the operating system failed to booted correctly.

Pellegrino and Dearborn teach wherein the application causes the indicator to be illuminated with a first color if the operating system booted correctly and causes the indicator to be illuminated with a second color if the operating system failed to booted correctly (Dearborn - column 6, lines 38-46).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Chen by causing the indicator to be illuminated with two different colors depending on the system status, as taught by Pellegrino and Dearborn. A person of ordinary skill in the art would have been motivated to do so because Chen discloses wherein the indicator light is repeatedly switched between on and off states under normal operating status, and wherein the indicator is fixed in the on or off state under failure (column 3, lines 48-62). Thus, there is a time period where the operating status is unknown, because the time period for inverting the signal has not yet been reached. Therefore, for more rapid operation, the method of Pellegrino and Dearborn would have been highly beneficial, as the color of the indicator would change instantaneously, and therefore causing no lag time.

With respect to claim 7, modified Chen discloses wherein the application determines whether the operating system booted correctly by determining whether a predetermined set of processes are active (column 3, lines 51-62).

With respect to claim 10, modified Chen discloses wherein the application determines the operating status of the system by determining whether a predetermined set of processes are active (column 3, lines 51-62).

Claim 17 is rejected under the same rationale applied to claim 5.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of U.S. Patent No. 6,587,966 to Chaiken et al. (Chaiken).

Chen does not disclose expressly restarting the system when it is determined that the system is not operating correctly.

Chaiken teaches a method of correcting an operating system hang condition by performing a system reset (abstract).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Chen by restarting the system when it is not operating correctly, as taught by Chaiken. A person of ordinary skill in the art would have been motivated to do so because Chaiken teaches wherein the operating system failure cannot be resolved unless there is intervention, such as a system reset (column 1, lines 11-29).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Guyton whose telephone number is (571) 272-3807. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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